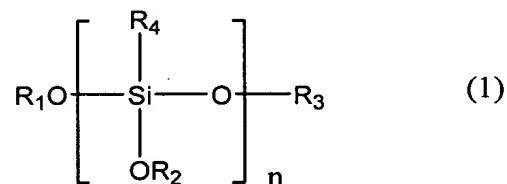


REMARKS

Claims 1, 2, 5-8, and 11-13 are pending in the present application.

By virtue of the fact that the rejections over Bank et al (US 5,225,510) have not been repeated, it is assumed that these grounds of rejection have been withdrawn. Accordingly, Applicants wish to thank Examiner Metzmaier for recognizing the differences between the claimed invention and the disclosure of Bank et al.

The present invention provides, *inter alia*, a coating solution of a silane type for giving an appropriate strength and good light transmitting and water repelling properties to a fiber material where said coating solution comprises a compound represented by formula 1, *as the main component*, and a catalyst for hardening/solidifying thereof



wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> may be same or different and each is hydrogen or an alkyl group having 1-4 carbons and n = 2-10;

wherein the catalyst for hardening/solidifying the coating solution of a silane type is one or more organometallic compounds selected from the group consisting of titanium, zirconium, aluminum and tin (Claim 8).

The present invention also provides a coated material, having a surface comprising a silane-based coating solution comprising, *as the main component*, a compound represented by formula 1 applied to a fiber material and hardened/solidified by the action of a catalyst (Claim 1).

Applicants submit that the art of record does not affect the patentability of the claimed invention for the following reasons. Reconsideration of the outstanding rejections is requested in view of the amendments and remarks set forth herein.

The rejections of: (a) Claims 1-4 and 8-10 under 35 U.S.C. §102(b) and/or 35 U.S.C. §103(a) over Smith (US 3,962,500), and (b) Claim 2 under 35 U.S.C. §103(a) over Smith (US 3,962,500), as well as the apparent rejection of Claims 5-7 under 35 U.S.C. §103(a) over Smith (US 3,962,500) appearing on page 4 (last paragraph) through page 5 (first paragraph) of the Office Action mailed January 12, 2005, are respectfully traversed.

Applicants remind the Examiner that MPEP §707.07(f) requires that “Where the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it.”

In the outstanding Office Action, the Examiner apparently maintained the rejections over Smith (US 3,962,500). All that was provided seemingly in support of these rejections appears in paragraphs 3-10 of the Office Action mailed January 12, 2005. However, paragraphs 3-10 are simply a carbon copy of paragraphs 7-14 of the Office Action mailed on June 29, 2004. The only difference is the last sentence appearing in paragraph 9 of the Office Action mailed January 12, 2005 (analogous to paragraph 13 of the Office Action mailed on June 29, 2004). This is especially problematic in that the claims that stand rejected in the outstanding Office Action include Claims that were canceled in the response filed on September 29, 2004 (i.e., Claims 3, 4, 9, and 10).

Moreover, the bases for rejection are not an accurate assessment of the presently claimed invention. For example, in paragraph 3 of the Office Action mailed January 12,

2005, the Examiner asserts that “the claims lack any recitation of concentrations.” This is not correct, as the Claims 1 and 8 positively recite “as the *main* component.”

Even further, Applicants note that the “Response to Arguments” section appearing in paragraphs 8 and 9 of the Office Action mailed on January 12, 2005, refer to arguments and pages allegedly contained in the response filed September 29, 2004. However, Applicants wish to point out that the response filed on September 29, 2004, only contains 12 pages. Therefore, it is clear that the Examiner’s assertions in paragraphs 8 and 9 of the Office Action mailed January 12, 2005, are irrelevant and misplaced.

Turning to the only new statement in the present Office Action, which appears in paragraph 9, the Examiner suggests “adding language to define the concentration of the materials of formula (1) and provide basis in the original specification for said basis if that is applicants’ intent, such as “in a major amount” or “in a predominant amount.”” Applicants have, *in fact*, done this in the response filed on September 29, 2004, which was in response to the Office Action mailed June 29, 2004. As shown above, and clearly evidenced by the response filed on September 29, 2004, the claims were amended to specifically indicate that the compound of formula (1) is *the main component (i.e., the component that is present in the greatest amount)*. Support for the limitation and interpretation of the term “the main component” can be found, for example, in original Claims 1, 5-8, and 11-13 and throughout the specification. In particular, support in the specification can be found, for example, on page 5, lines 8-15, page 12, lines 1-6, page 22, line 15 to page 23, line 7 (especially page 22, lines 15-19), and the Examples.

However, Applicants again submit that the issue of relative ratios of components is secondary to the first deficiency in the disclosure of Smith. Smith fails to disclose with sufficient specificity the claimed condensate degree. The only alkoxysilane disclosed by

Smith is component (C), which is defined at column 1, lines 57-64 as being “a silane having the general formula  $R^bSiZ_{4-b}$ , wherein  $R^b$  is a hydrogen atom, a monovalent hydrocarbon radical or a monovalent halogenated hydrocarbon radical, Z is an alkoxy or alkoxyalkoxy radical having from 1 to 4 inclusive carbon atoms and b is 0 or 1, and/or a partial hydrolysate of said silane.” However, Smith provides no disclosure or suggestion of the condensate degree of the claimed alkoxysilane, which is  $n = 2-10$ .

On this basis alone, Smith certainly cannot anticipate the claimed invention and does not even render the present invention obvious and, therefore, these grounds of rejection should be withdrawn. The distinction between the alkoxysilane disclosed by Smith and that in the presently claimed invention has been raised in the responses filed on April 20, 2004, and September 29, 2004, but continues to be left unaddressed by the Examiner. Applicants urge that this distinction no longer be ignored.

Moreover, based on the foregoing, it is clear that the claimed silane-based coating solution contains the claimed alkoxysilane as *the main* component (i.e., the component that is present in the greatest amount, which is not necessarily greater than 50% as previously argued). Even if the skilled artisan were to interpret component (C) of Smith as being the claimed silane compound, this disclosure fails to meet the concentration limitation in the present claims.

In fact, Smith specifically discloses the exact opposite (i.e., *teaches away* from the claimed invention). To this end, Applicants direct the Examiner’s attention to the disclosure at column 4, lines 38-48 of Smith, which limits the total amount of component (C) to 25 parts per 100 parts of (A). Accordingly, (C) is *necessarily a minor component* in the coating composition disclosed by Smith.

Applicants note that MPEP §2141.02 states: "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). Therefore, the explicit disclosure of Smith that teaches away from the claimed invention would necessarily render the present invention novel and unobvious in view thereof.

In summary, the present invention differs from the disclosure of Smith in at least two ways:

- A) Smith fails to disclose with sufficient specificity the claimed condensate degree;  
and
- B) Smith fails to disclose or suggest the concentration limitation of the present claims  
and, in fact, teaches away from the same.

Accordingly, for all the foregoing reasons, Applicants request withdrawal of these grounds of rejection.

The obviousness-type double patenting rejection of Claims 1-13 over Claims 1-9 and 13-15 of US 6,403,183 in view of Marwitz et al., is respectfully requested.

The presently claimed invention requires that the compound of formula (1) be present as the main component (i.e., the component that is present in the greatest amount).

Applicants note that the claims of US 6,403,183, even when combined with the disclosure of Marwitz et al., does not disclose or suggest the concentration of the compound of formula (1) in the coating solution and, as such, the invention claimed in Claims 1, 2, 5-8, and 11-13 is not obvious.

Moreover, the Examiner's attention is directed to page 22, line 15 to page 23, line 7, which specifically detail the problems associated with an increase in the overall content of, for example, compounds of formula (2) as claimed in Claim 1 of US 6,403,183.

Therefore, Applicants submit that the claimed invention is not obvious over Claims 1-9 and 13-15 of US 6,403,183 in view of Marwitz et al. Withdrawal of this ground of rejection is requested.

Applicants submit that the present application is now in condition for allowance. Early notification of such action is earnestly solicited.

Respectfully submitted,

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